Issue 18
September 2018

Utah Valley Amateur Radio Club

The UVARC Shack

Special Events Days of '47 K7T

Tyler Simpkins, KI7FUO, takes the helm calling CQ at the K7T Days of '47 Special Event Station while Daylon Dean, WB6KIT, logs his replies, at Scera Park in Orem, Saturday July 21.

In this issue of the *UVARC Shack*

Photos from our Special Event Station K7T in Scera Park. Remembering two club members who are now Silent Keys.

Way to Be for K7WON during a TERT weekend. NK8Z shares his shack with us. *Brass Tacks* tackles a little-known phenomenon, of which you should be aware.

Dear Annette answers a question about logging contacts and telescoping antennas. *Events* spotlights the Utah Valley Swapmeet and a minor concern.

Please send your ideas, stories, updates, photos, questions, gripes, and breaking news to ***uvarcshack@gmail.com***

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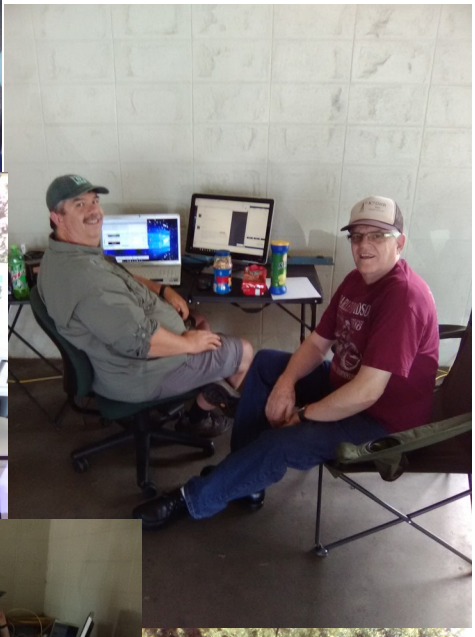
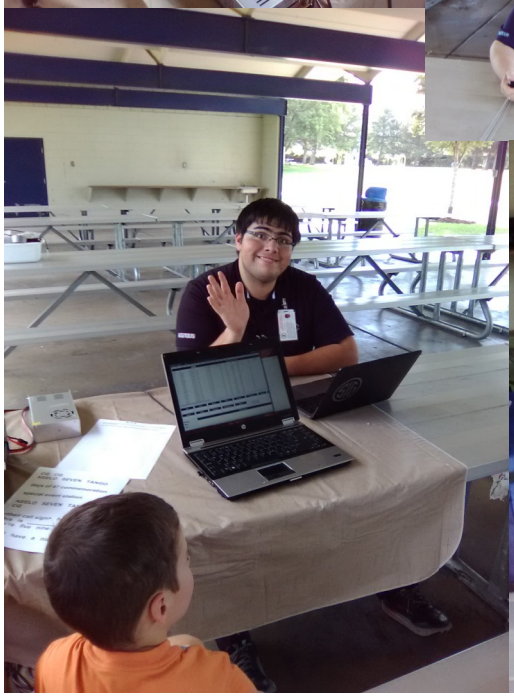
Special event station K7T

In photos

On Saturday 21 July 2018, thanks to an idea by Chad Buttars, WE7CB, the club set up Special Event Station K7T at Scera Park in Orem. We were honoring the Days of '47 Pioneer Commemoration, drawing the public's attention to the 171st anniversary of the official arrival of the Mormon pioneers into the Salt Lake Valley. Thanks to all the many club members who came by to help or just observe! We even had a few passers-by stop in and try throwing out some CQs. Chad oversaw operations for the digital station, and Dave Becar, KI6OSS, Caryn Alarcon, KG7UUR, and Danny Johnson, KF6MIQ, took turns overseeing the 20-meter SSB operation. We had a blast, whether we were hamming or logging contacts!





Special event station K7T

In photos

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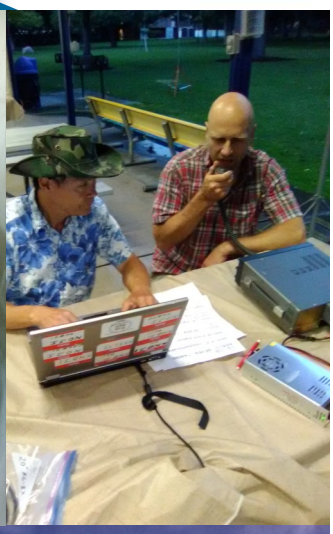


Silent Key

Memorial for a member who has passed on

Allen Klinefelter, KK7ZC

The following are paraphrased excerpts from his obituary:

Allen Lee Klinefelter, 67, passed away 09 August 2018 after a long fight with COPD. He was born in Washington, DC, 31 May 1951, the son of Jack and Joyce (Mauck) Klinefelter.

Allen lived a life of service to others starting at the age of 18 as a volunteer firefighter, and continued fighting fires as a volunteer for 35 years. He became an EMT and is credited with saving several lives and bringing 6 new lives into this world. He was drafted into the Army and became an Army Airborne Parachute Rigger Instructor at Fort Lee, Virginia.

Allen later joined his father Jack as a stone mason in Washington, DC, and was elected president of the Stone Masons Union in Washington, DC. Allen was also a Forth Degree Knight of Columbus and a member of the Catholic Church.

After leaving the Army, Allen served as an enforcement officer in the Petersburg, Virginia, Police Department and then joined the Sussex County Sheriff's Department. He had a love of the law, and when he was given an opportunity, moved to Rawlins, Wyoming, to become a corrections officer. A few years later into the position they made him Major of the facility.

Allen was a lifetime member of The Harley Owners Group. He developed a love of Harleys as a motor officer and was able to fulfill his dream of owning his own Harley, allowing him and his wife Patrice to travel throughout the Western United States.

He was a ham radio operator, and in his last years loved being part of The Eagle Mountain Emergency Communications Team.

Allen's greatest love was his family. He is survived by his wife Patrice, and was preceded in death by his parents Jack and Joyce Klinefelter, sister Kathie Reid, a brother Keith Klinefelter, and a grandson Joseph Emery.

Silent Key

Memorial for a member who has passed on

Carol McWherter, KC7LLW

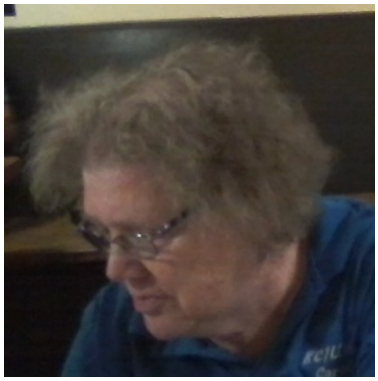
Carol McWherter, friend and active club member, passed away last month, leaving behind a supportive family and a huge legacy of service in the military, in scouting, and in amateur radio.

She served for years in the Military as the Assistive Administrator of the Entry Processing Station. Carol also served in scouting as a District Commissioner, as well as Unit Commissioner and several other positions through the years, in the Great Salt Lake Council of the BSA. She once served as Historian of UARC many years ago. Truly, what Carol has done for others in the public eye is difficult to summarize in this short spot.

Carol and her grand-nephew Daniel Bennion, KI7JZO, could be seen at many of our UVARC meetings and at Lucy's Pizzeria hanging out with us afterwards. In the past, she and her husband Eugene, N7OVT, have served in many capacities in ARES and public service events.

The following is an excerpt from her obituary:

.Carol passed away on 14 August 2018, after a courageous battle with cancer. She was born in 1949 to Theron and Donna Farnsworth in Salt Lake City. Carol attended Jordan High School and University of Utah. She met her sweetheart Eugene McWherter while square dancing, and were married in the Salt Lake Temple in 1973. Carol served 35 years with the US Military as a Support Tech, and was heavily involved with amateur radio communication and as a Boy Scout Leader. She seemed to always be working on a craft.



Carol is survived by her three sisters, 17 nieces and nephews, and 38 adopted grandchildren. Preceded in death by her husband Eugene. She'll be dearly missed.

Way to Be

Spotlight on our members

Steve Fleischer, K7WON

On Saturday July 28 Steve Fleischer, K7WON, was serving at High Camp (up near the summit) for TERT (Timpanogos Emergency Response Team) and got more than he bargained for.

Steve's a relatively new ham, having gotten his Technician license only this past February 2018. After joining TERT and going through the required training, he volunteered for High Camp, a two-night backpacking trip to near the top. Here's his own story:

Up to this point I've participated on some local nets and met some people on the '76 repeater, and so far it's been a fun hobby. I found an opportunity to practice my radio skills by joining TERT, a team of medical and radio people. This was my chance to use radio in a real service situation. Since I was brand new, my position on the team was more of a helper, and to get some training.

On July 28 I was on the High Camp team on the back side of Mt. Timpanogos. We were hanging out at the shelter by Emerald Lake about noon when a hiker with a ham radio and his son stopped to chat with us on the way down the trail from the summit. Thirty minutes later, we got a radio call from the same hiker: he had slipped and broken his ankle. Our team leader sent me, along with an EMT, to investigate. Once we found the injured hiker, we determined that he could not get down on his own power. I radioed our team leader at Emerald Lake that we needed help from SAR (Search and Rescue). A short time later SAR had set up a makeshift command post at the base of Aspen Grove, the trailhead on this side of the mountain. Since the terrain was so steep where we were, they radioed me that they had decided to send a helicopter with a hoist to retrieve him.

Having never been part of a helicopter rescue, and not wanting to make any mistakes, I radioed down to the trailhead and asked for a quick run-down of the procedure for this type of operation. The chopper flew over us and lowered a medic down on the winch to the ground, then took off. Once we helped him get the patient secured in a sling, the chopper circled back and picked up both the medic and the patient, then flew away.

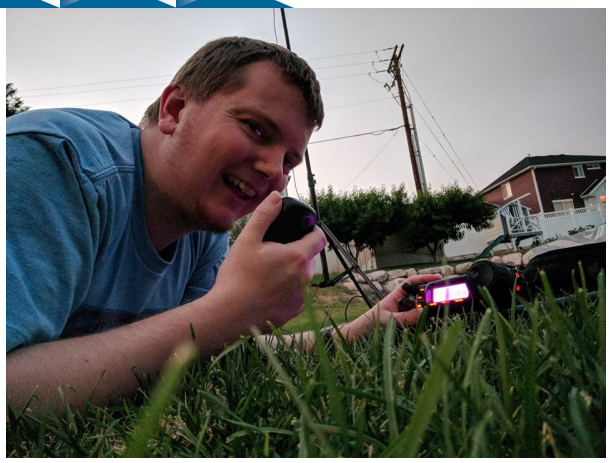
To be involved in such an intense rescue was a real rush, especially so early on in my TERT career/ experience. I learned a lot that weekend about how radio communication with a team is critical for a successful rescue.

Nice work, Steve!

My Shack

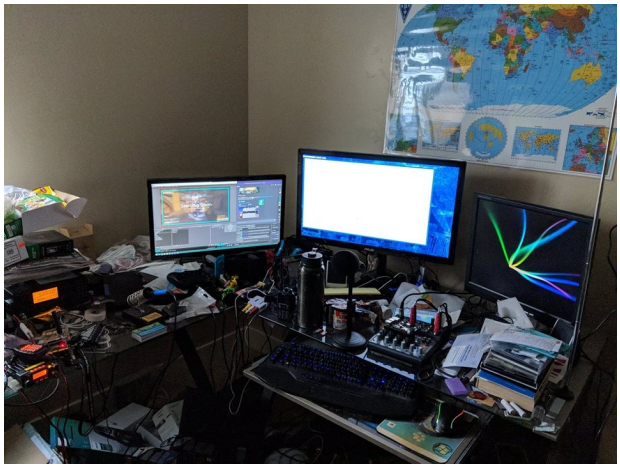
Highlighting the shack (ham equipment and room) of a member, to give others an idea of the possibilities that might work for them

Colton Wolkins, NK8Z



Salutations! Believe it or not, a couple of years ago, I had no idea that Amateur Radio even existed. The only public radio service (besides WiFi, but more on that later) that I knew about was FRS and my cell phone, neither of which works very well in an emergency. I was also a shut-in programmer and a hobbyist network engineer; I didn't even know that radio was used for public service events, like races or parades.

At the time that I learned about radio, I was looking at how Provo has gigabit fiber internet (Lehi still doesn't), and I was curious if one could purchase a couple of commercial-grade WiFi nodes from Ubiquity and get faster and cheaper internet than Comcast by placing one node at my house, then pointing it towards one in Provo.



One day, I was just toying with the idea of setting that up while doing a bit of research, and found out via IRC (Internet Relay Chat, that ancient technology that predates Instant Messenger) that a wireless mesh system existed using commercial radio gear throughout Utah and Salt Lake Valleys. I eventually found Jeff N1SC in IRC and he helped guide me (along with Kim KD7IKE via email) towards getting licensed. While I was trying to study, and after I got licensed, I found out that there was so much more to radio than just "using commercial-grade radios for fun."

Today, I prefer SSB to other modes because it helps me learn a lot about propagation. Some of my shack equipment includes

Icom IC-718 HF transceiver

Zastone MP-300 VHF / UHF transceiver

Yaesu FT-857D HF / VHF / UHF transceiver

HYS TC-8900R 10 m / 6 m / 2 m / 70 cm transceiver

Ubiquity Nanostation M2

Pockrus J-pole antenna, EFHW longwire antenna

— 73 from NK8Z

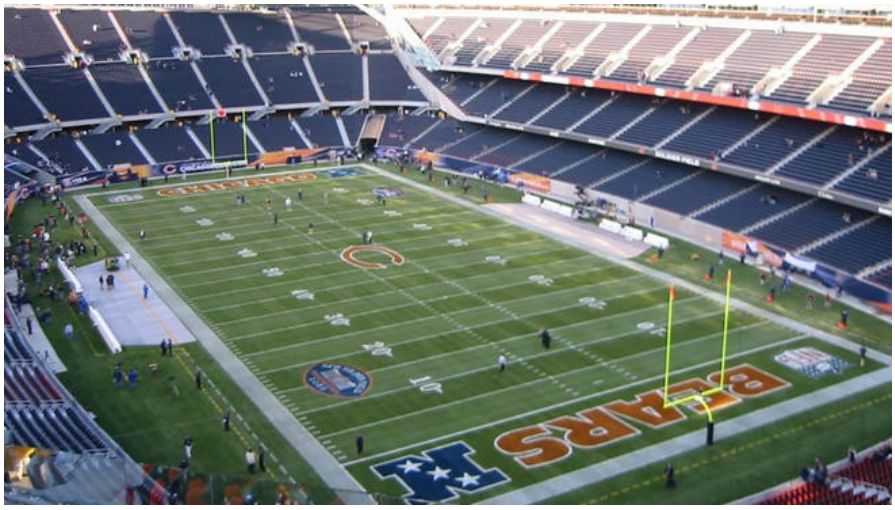
Brass Tacks

An in-depth look at a radio-related topic

Radio football

This article attempts to answer (at least) the following mysteries:

- *Why do my friend and I, who are across town, but in **line-of-sight** from each other, hear a lot of static in our QSO?*
- *How is it that the same friend can hear me clearly on the repeater, which is also **line-of-sight** to us, but twelve times the distance away from us?*
- *When I'm traveling down the freeway, why do people report that I'm picket-fencing, even though I'm **line-of-sight** with the repeater we're on, the entire time?*



The super ball

Imagine you and your friend, each with an HT (handheld transceiver), communicating on simplex, in line-of-sight with each other. Also imagine a huge, football-shaped volume whose ends are fixed at your two radios, and whose maximum diameter is defined as

$$diameter = 10\sqrt{(3d / f)}$$

where d = the distance between your radios in meters and f is your radio frequency in MHz. For example, if you're communicating on 146.520 MHz and you are 17 kilometers from each other (say, one in Orem and the other in Lehi), then the maximum diameter of your imaginary football is

$$diameter = 10\sqrt{(3d / f)} = 10 \times \sqrt{(3 \times 17000 / 146.520)} = 186.5 \text{ meters}$$ thick, at about halfway between you two.

This roughly ellipsoidal region is the space you should always imagine as the *zone of interference*. It's the space where, if any electrically polarized object (cars, people, trees, buildings, hills, bodies of water, or other conductive thing) enters, can obstruct the signal between you two, to some degree.

Brass Tacks

continued

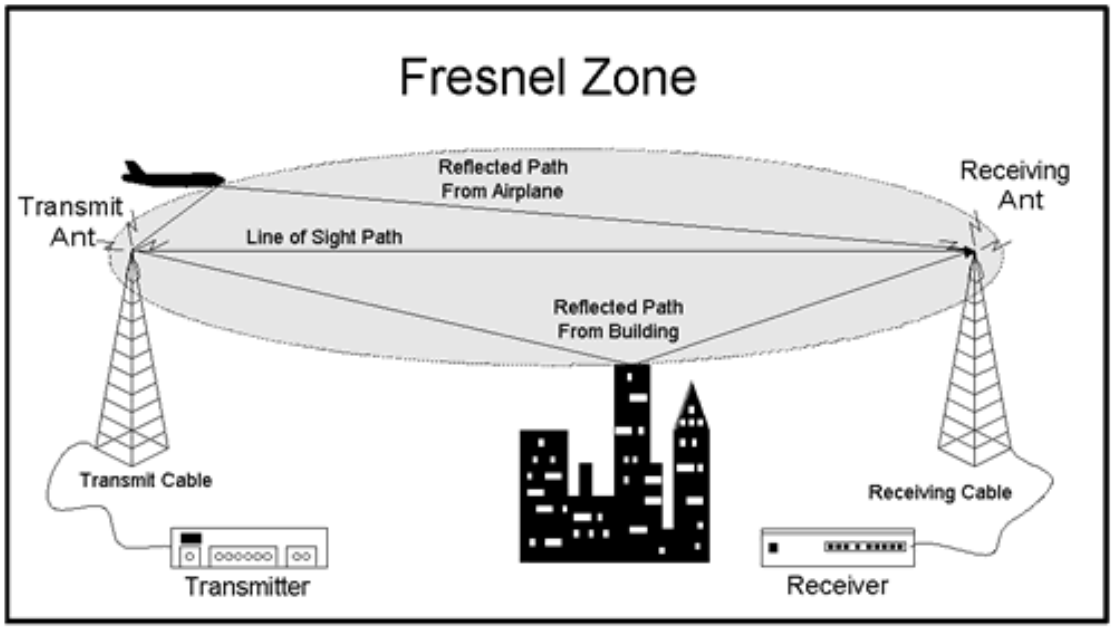
End zone

Technically, this is known as the *Fresnel Zone* (https://en.wikipedia.org/wiki/Fresnel_zone) (pronounced fra-NELL), after the young French genius who discovered the phenomenon by playing with light propagation back in the early 1800s. Essentially, just about anything within this zone can interfere with your signal by 1) blocking it, 2) reflecting it, or 3) refracting it. There are other causes and effects, but these are the most important to amateur radio interference due to obstruction.

When an object ***blocks*** your signal, it can prevent the energy from arriving at its destination. Like casting a shadow, the object absorbs your signal energy, so that the amount of signal reaching the target is reduced by the area facing your signal. Blocking your signal typically occurs in the general line-of-sight with your target, near the center of the zone of interference.

If an object is not in the direct path of your line-of-sight with your target, but within the zone of interference, it's still possible for it to ***reflect*** your signal, thereby causing more than one signal to reach your target. While that seems like a good idea (two signals are better than one, right?), the problem is that the multiple signals arrive at the target at different moments, causing one to reach the target out of phase with the other, resulting in actually cancelling each other out. This is known as multi-path, and can result in a distorted or even canceled signal, which often occurs within the zone of interference.

There are objects through which your signal can travel, but might bend your signal instead of reflect it, much like an optical lens can bend light coming through it. This ***refraction*** can occur because of the dielectric properties of the object, and can pass the signal in a distorted fashion, if the object lies within the zone of interference, whether or not it lies within your target line-of-sight.



Brass Tacks

continued

Pass interference

So, which kinds of objects produce which of the above effects? Well, just about any somewhat-conductive object can result in any of them, but typically metallic equipment (storage tanks, cages, cars) tend to reflect, and water-based objects (trees, animals, ponds) tend to refract.

And just how large is this zone of interference? If you go through the above calculations, you can see that it's frequency-dependent, but it's also proportional to the distance to your target. In short, the diameter of the football is about 1% of the distance to the target on 2 meters, about 2/3% of the distance on 70 cm, and almost 2% of the total distance on 6 meters. So, the higher your frequency, the fewer things will fall within the same zone of interference, which in part explains the success of higher frequencies through objects, and the failure of 6 meters performing the same in the same area.

As you drive your car within line-of-sight of the repeater you're communicating through, using your mobile unit, you might notice a large conference hall about a quarter of a mile away. It's possible that your signal will sound good, then sketchy, then good again, about every fifteen feet or so. But at your current speed of 61 or 62 MPH (translated to 90 feet per second), you might hear that good-sketchy-good sound about (90 / 15 =) 6 times a second, which will sound like somebody blowing into a slow fan.

Touchdown

Does this apply to skywave propagation? Absolutely. Think of each trip (direct path between radio and ionosphere, or ionosphere and ground), each with its own football, meaning multiple zones of interference from start to finish. What can interfere with them? Clouds, aircraft, trees, bodies of water, large populations of birds and insects, moist or dense air, static charge buildup, the ionospheric D-Layer, the solar wind (atmospherically absorbed solar particles), magnetic field aberration, and particulates such as dust, smoke, and pollution.

With so many obstructions against you, it's a wonder that amateur radio works at all. And it IS a wonder. Still, awareness is often the first step to overcoming problems when we encounter them, and that's the purpose of this article: to make you aware of this electromagnetic phenomenon and expand the way you look at radio propagation. So, the next time you get on the radio, and you encounter interference, it might be wise to keep football on your mind. No punt intended.

— Noji Ratzlaff, KNØJI (kn0ji@arrl.net)

Dear Annette

What's on your mind? Serious, humorous, technical, and thoughtful answers to your deepest, (mostly) ham-related questions.

Dear Annette:

Once in a while I hear people talk about logging contacts they've made on the radio. Is that something we're required to do? If so, do we just jot them down on paper, or is there a website where we do this?

Joelle in Provo

Dear Joelle:

On one hand, you are *not* required to log your ham radio contacts. On the other hand, I think it's kind of fun to track out-of-state or DX contacts, and there are reasons you might want to. At one time, it was actually required by the FCC, but that requirement has been relaxed. The FCC still reserves the right to inspect your amateur radio setup, and a log might help to clear up possible misunderstandings, if any should arise. Still, I log my contacts during contesting, so that I can submit the log for awards and such. I also log my *special* contacts on my QRZ page, so that others can see whom / where I've contacted. And my logging software? Although several good ones exist, I use the N3FJP app for contesting and the QRZ website for personal contacts. So, logging your radio contacts is purely optional, but another fun part of amateur radio!

Dear Annette:

After hearing about how well telescopic antennas perform, I'm thinking of purchasing one for my HT. Do you have any tips on how best to use a telescopic antenna, or even how to care for one?

Joshua in Orem

Dear Joshua:

A telescoping antenna can be a terrific, compact performer for your little HT, but there are a few things to keep in mind. **One**, make sure you've extended it to its proper length. While most require you to extend it all the way for the best performance and SWR, some tri-band (2 m / 1.25 m / 70 cm) antennas require different extension lengths for different bands, for example. **Two**, a fully extended telescoping antenna can be heavy and awkward, requiring you to hold both the base of the antenna and the HT body in one hand when you transmit, to prevent breaking the PC board inside your HT. Just be sure not to touch the metal parts of the antenna while transmitting. An alternative is to purchase a telescoping antenna with a spring base, which can relieve some of the strain on your HT. Some spring-loaded antennas come wrapped in heat shrink tubing to help protect both the antenna and your hand. **Three**, when you retract your telescoping antenna, pull in the sections from near the base, instead of pushing them in from the top, or you'll soon find out how fragile they can be.

Dear Annette:

What is shortwave radio?

Curious in Provo

Dear Curious:

Shortwave radio is basically two things: a technology and a hobby. The shortwave radio frequency spectrum encompasses roughly 1.6 to 30.0 MHz, which overlaps the entire amateur HF bands, but most shortwave communications are one-way (broadcast), using AM (amplitude modulation). The shortwave hobby is often abbreviated *SWLing*, for shortwave listening. Listeners find enjoyment in hearing information, propaganda, and music from established shortwave stations in many different countries worldwide, often in native languages.

Got a question for Dear Annette*? Email it to* ***uvarcshack@gmail.com*** *and include your town name.*

DIY

Worthwhile projects you can build on your own

20-meter roll-up dipole antenna

A few weeks ago, I was in a hurry, and needed a compact, lightweight antenna for 20 meters. I mean, my homebrewed dipole (*UVARC Shack*, July 2017) is a real winner, but the PVC balun is weighed down by the sheer amount of plastic and eye bolts and washers and nuts, not to mention the 14 AWG stranded copper wire elements. So I thought, No problem...I'll just whip up a roll-up dipole made from 18 AWG speaker wire. And in less than an hour I had a complete and compact antenna for 20 meters.

Essentially, I made this antenna from two wires and a connector, and it performs as well as a regular dipole. It's not nearly as weather-hardy as my other, regular homebrewed dipole, but it's not meant for long-term outdoor operation, so that wasn't a concern. But because the elements are thinner, I worried that its bandwidth might get compromised. Let's find out.

Parts list:

34 feet of 18 AWG speaker wire (17 feet of the pair)
5 inches of 2.0 mm heat shrink tubing
1 2.5 mm X 8 mm flathead, beveled machine screw
1 2.5 mm X 0.45 mm nut
1 BNC (female) solder bulkhead connector
2 16 AWG ring terminal for #4 stud
1 16 AWG ring terminal for ¼" stud
1 2.5 mm flat washer
1 2.5 mm lock (split) washer
1 BNC male-to-SO-239 adapter

BNC female solder bulkhead

speaker wire

ring terminals

BNC / SO-239 adapter

First, I started by calculating how long my wires should be. Using the typical frequency-to-feet conversion formula for a quarter-wavelength, I figured that each element (side) should be

234 / 14.175 MHz = 16.5 feet, or 16 feet 6 inches

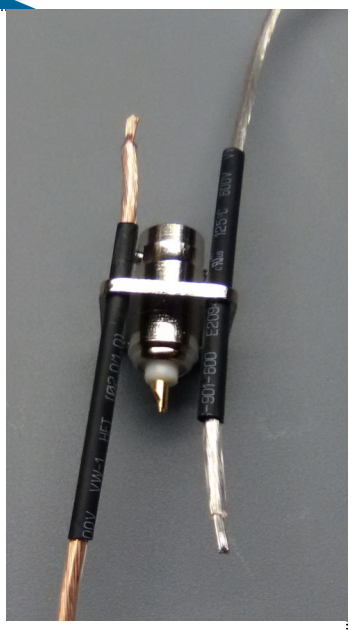
But taking the wire's velocity factor (0.95) into account (see *Questions of the Month* in this issue), the actual length should be closer to

16.5 feet X 0.95 = 15.675 feet, or 15 feet 8 inches

DIY, continued

20-meter roll-up dipole antenna

Construction



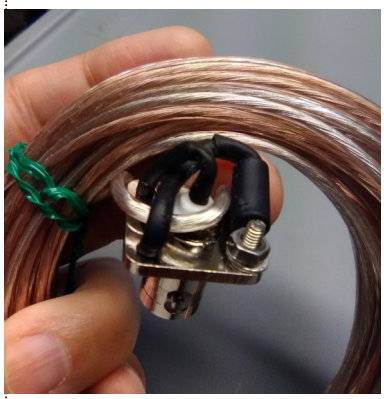
First, I carefully ripped the speaker wire pair down the middle to separate the two halves. Then, I slipped a 1″ piece of the 2-mm heat shrink tubing over each of the separated wire lengths, a couple of inches from the end of the wire, and stripped about ¼″ off each end. Next, I threaded each wire, along with its tubing, through one of the mounting holes of the bulkhead to relieve the strain on the wire against its connecting joints. In the end, the shrink tubing is applied more for protecting the wire insulation from cutting by the sharp mounting holes.

Next, I soldered one of the wires to the center solder pin of the connector, and shrank the tubing over the soldered connection. For the other wire, I soldered a ring terminal for #4 stud, then mounted it to one of the free holes of the bulkhead using a 2-mm bolt, nut, and split washer, then shrank its tubing as well.

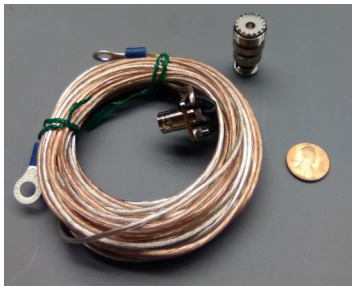
I measured and cut each wire 15 feet 8 inches from the bulkhead, then applied Super Glue to connect the wire to a ring terminal for a ¼″ stud. The ring terminal is only used as a mounting hook, so that I can stretch out the dipole in a flat-top configuration. The glue allows for a strong, permanent, and non-electrical connection between the wire and the terminal.

Testing the finished product

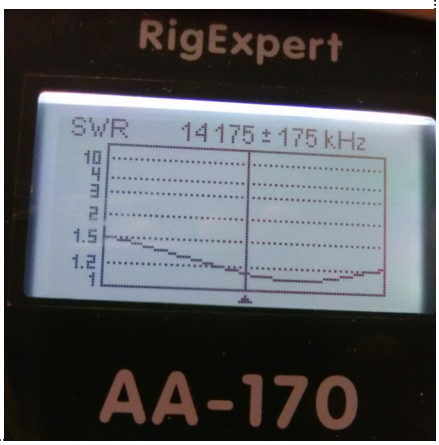
To test the antenna, I added a BNC-to-SO-239 adapter, then stretched it across some 6-foot-tall garden stakes I had in my garage. Ignoring the proximity to the Earth, I hooked it up through some coax to my antenna analyzer, and was very pleased with the results. The center frequency showed a low SWR (about 1.1:1), and the SWR bandwidth exceeded the stretch of the 20-meter band, so my fears about those left me, and I was left with a useful antenna. And to prove it was indeed useful, I got on the air right away and made five contacts, in AL, OR, OK, CA, and TX in less than twenty minutes. And that's six feet off the ground. Shweet.



Finished detail



Compact roll-up size



Events

What's happening in our ham radio community

Utah Valley Swapmeet

Large gathering of amateur radio enthusiasts

Less than five weeks until the *2018 Utah Valley Swapmeet*, sponsored by the Utah Valley Amateur Radio Club. It will be held on Saturday September 29 from 9 am to noon, in the Ponderosa Room of the Spanish Fork Fairgrounds, 475 S Main St in Spanish Fork. Entry is $5 per person or $10 per family. The typical purpose of a swapmeet is to offer buyers and sellers an opportunity to get together and buy / sell / trade, plus the chance to rub shoulders with both new and long-lost ham friends. But this swapmeet will also provide opportunities for you to meet other clubs, ham radio social groups, and service organizations, and much more.

The website for the Swapmeet is utahvalleyswapmeet.com. We've gotten most of the details worked out, but the latest info will be posted on the website, and on FB.

Time to address a concern

A couple of weeks ago, I was reading a Facebook post, which led to a blog that made me a bit uneasy. And since that post, I've discovered a few in our club who have felt a little intimidated by the topic, which caused them to question their place in the craft. And that prompts me to say something about it. The topic was *appliance operators*, mingled with *no-code licensees*.

An *appliance operator* is an amateur who knows little more about math and electronics than what was required to pass the license examination, and who has little desire to increase that same knowledge. Furthermore, an appliance operator is one who has probably never built an electrical thing in his or her life, and most likely never will.

Well, I'm not ashamed to say that *I too am an appliance operator* by most standards. I mean, I've done all that designing and building and mathing and such, but these days I'm pretty content with simply ordering a fancy gadget from HRO, plugging it in, pushing the PTT, and calling myself a ham.

Once upon a time (like, eighty years ago), amateur radio was a hobby filled only with people who could tinker with electronic gadgetry. And of course, the only mode they could communicate with was CW, using Morse code.

Since those days, amateur radio, along with the equipment, license requirements, and modes of operation have progressed. There are a few operators, however, who seem to be mired in the good-old days, taking it upon themselves to criticize modern amateurs because these young whipper-snappers have never built a radio or keyed one letter of Morse code in their lives.

Their need to lash out arises partly out of resentment toward the gubmit, who has relaxed some of their requirements, and partly out of sheer, petty jealousy. "They call themselves Generals, but they've never gone through what WE had to go through!" That's like saying, "You're not a true automobile driver if you've never had to hand-crank your engine out in the rain, no-siree!"

If it means anything at all, let me assure you that, once you have a ***license*** and a ***radio***, that's all it takes to set up a communication channel, and be the means of saving somebody's life some day. Maybe your own. You don't need to know anything else to be effective at amateur radio. You don't ever have to have built an antenna or pound out a Morse code character to enjoy the craft.

Believe it or not, you ARE a ham.

— Noji Ratzlaff, KNØJI (kn0ji@arrl.net)

For Your Insight

Information you could use

Club meeting format

Here's the usual agenda for club meetings, at the Orem City Council Chamber Room, 56 N State St:

Talk-in frequency on the club repeaters

6:30 pm : Eyeball QSO

socialize / put faces with call signs

radio programmers available to help you

6:45 pm : Call the meeting to order

meeting lineup (agenda)

announcements / nets / awards / calendar

7:00 pm : Discussion / breakout session

discussions usually involve everybody

breakouts split into separate groups

7:45 pm : Door prizes

7:55 pm : Dismiss and tear-down

8:00 pm : *Club QSY* to Shake Makers

Something you'd like to see at the meetings?

Monthly meeting help

We're grateful for the volunteers who help with various tasks that make our club night just that much more friendly and useful to everybody. Monthly we need help with

programming radios (thanks, Loren / Ralph!)

taking photos or videos during the meeting

operating the talk-in radio

setting up tables and chairs (thanks, Heath!)

Lynx

Websites for your education and leisure

For the New Ham Radio Operator

Ham Radio Nets

DX Summit and DX Maps

76'ers Group and UVARC Group pages

SOTA and SOTAwatch

Give us your input at uvarcshack@gmail.com

Questions of the Month

Test your knowledge (answers next page)

G2AØ3 : Which of the following is most commonly used for SSB voice communications in the VHF and UHF bands?

A. Lower sideband
B. Upper sideband
C. Double sideband
D. Vestigial sideband

E9FØ3 : Why is the physical length of a coaxial cable transmission line shorter than its electrical length?

A. Skin effect is less pronounced in the coaxial cable
B. The characteristic impedance is higher in a parallel feed line
C. The surge impedance is higher in a parallel feed line
D. Electrical signals move more slowly in a coaxial cable than in air

Calendar

What's happening
(times are Mountain Time)

Utah County Ham Exam Sessions

BYU J. Reuben Clark Law School building

Sign up at HamStudy.org/sessions

Wed August 15, 7:00 to 8;45 pm
Sat September 15, 2:30 to 5:00 pm
Wed September 19, 7:00 to 8:45 pm
Sat October 13, 2:30 to 5:00 pm
Wed October 17, 7:00 to 8:45 pm
Sat November 10, 2:30 to 5:00 pm
Wed November 21, 7:00 to 8:45 pm
Sat December 8, 2:30 to 5:00 pm
Wed December 19, 7:00 to 8:45 pm

Provo One-day Technician Courses

Third Saturday Monthly at 8:00 am
Re-starting September 15
BYU Law School Bldg, First Floor

2018 / 19 Orem Ham Radio Courses

Technician : Sept 28, 25, Oct 2, 9
Technician : Jan 22, 29, Feb 5, 12
General : Mar 19, 26, Apr 2, 9

Club Meeting Calendar (6:30 pm)

Orem Council Chambers, 56 N State St

September 6^	October 4
November 1	December 6*
January 3	February 7
March 1	April 5

^Elections

** Actually a potluck at 93 N 400 E*

Regular Nets

RACES Net, Thu Oct 18 8:00 pm, 147.12
Jackson Hole Net, Mon 8:00 pm, 146.76
UVARC Ladies' Net, Tue 7:00 pm, 146.78
UARC 76'ers, Wed 7:00 pm, 146.76
UVARC Youth Net, Thu 6:30 pm, 146.78
UVARC New Ham Net, Thu 7:00 pm, 146.78
CERT Net, 2nd & 4th Thu 8:00 pm, 146.78
Utah County 6 meters, Fri 8:00 pm, 50.14
6-Pack Net, Fri 9:00 pm, 50.15
Family History Net, Sat 8:00 pm, 146.78
See a larger list of nets at noji.com/nets

Upcoming Contests

All-Asia DX
August 31, 6 pm to September 2, 6 pm

State QSO Parties
CO, AL, TN : September 1 weekend

State QSO Parties
IA, WA, NH, NJ: September 15 weekend

State QSO Parties
ME: September 22 / TX : September 29

See a larger list at noji.com/contest

Answers to the Questions of the Month

G2AØ3 : **B** (Upper sideband) [Lower sideband is typically used only on the 160-, 80-, and 40-meter bands, which are confined to HF]

E9FØ3 : **D** (Electrical signals move more slowly in a coaxial cable than in air)

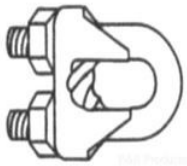
Vendors

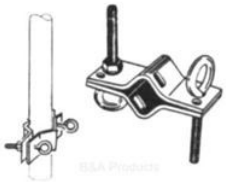
For your convenience

Home Brew Antenna Supplies and Services

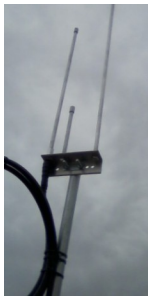
MMTD is pleased to offer components to the antenna home brewer!

*Navair (Military Grade) Quality Antenna Hardware
*Insulators *Round and Square Aluminum Booms
*Two and Three Wire Spreaders *Standoffs
*Stainless Steel Clamps in Many Configurations
*Guy Plates *Antenna Grounding Switches
*Bolt Plates in Galvanized, Stainless Steel or Aluminum
*Custom Cooling Chimneys *Grounding Rods
*Delrin, Phenolic and Bakelight Components
*Turnbuckles *Stock and Custom Coils
*Dipole Centers *Aluminum Radials *Grounding Rods
Custom Machining and Welding





For information or a list
email maxfieldmachineTandD@cut.net
or call 801-830-3904



$25, open-stub "Joystick" aluminum half-wave J-pole antenna
$35, 6-meter dipole, $20 for the 220 MHz (1.25 m) antenna
by Carl Pockrus, WE7OMG
Half-wave performance, solid construction, weather-proof, low wind-load
Probably the best-performing outdoor antenna you can get for the price
Email at we7omg@gmail.com for purchase or information

$20, vertical "Super-Elastic Signal Stick" quarter-wave flexible antenna
by Richard Bateman, KD7BBC, of SignalStuff (and maker of HamStudy)
Super-performing antenna for your HT (handheld transceiver)
Visit SignalStuff and select SMA-Male, SMA-Female, or BNC

Want your call sign or name (or both!) embroidered on your shirt, your hoodie, your duffle? Or how about a club patch with your call sign?
by Glenna Gardner, WE7SEW
Call sign or name = $5, Both = $8, UVARC patch = $5, Patch with call = $9
Email at glenna0354@gmail.com or call / text 801-592-2503

Where everybody knows your call sign

Utah Valley Amateur Radio Club
Orem, Utah, USA

K7UVA
Phone/Text: 801-368-1865
Email: k7uva@arrl.net

Repeaters: 146.780–, 100.0
448.200–, 100.0 224.560–, 100.0
145.250-, 100.0 448.225-, 100.0
Newsletter input?
Email uvarcshack@gmail.com
Need help?
Email uvarcelmer@gmail.com

We're on the web!
uvarc.club

We are the *Utah Valley Amateur Radio Club*, a 501(c)(3) non-profit (EIN 81-360-6416) Utah corporation that was organized in an obscure Orem fire station on 02-05-2016 to provide amateur radio hobbyists in Utah County and surrounding areas a way to gather and discuss all things ham. Our primary purposes are to provide a local amateur radio resource, help new hams in their new-found adventures, and to give more experienced hams a reason to share their wealth of knowledge and wisdom in a friendly atmosphere of fellowship. We're an ARRL Affiliate and work in cooperation with the Utah VHF Society, but are not subsidiary to them, to UARC, the 76'ers, UCARES, RACES, the SCATeam, or any other organization, although many of our members might also belong to the same.

This newsletter is published every so often by the Utah Valley Amateur Radio Club, and its purpose is to convey the tone and temperament of the club, to inform and entertain its members, and to entice the rest. To join, go to uvarc.club/join or to www.facebook.com/groups/uvarc/ and request membership. For more information about our club or about amateur (ham) radio in general, please email or text or call us.

More than just a club, we invite you to become part of a great ham radio movement in Utah Valley

Our fearless leadership

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Vice President..... Chad Buttars
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Club Sponsor

Heath Stevenson
Orem City Emergency Manager

73